SCOPE OF PROPOSED PERMIT CHANGES

Landfill Pond Expansion & Relocation of Outfall 004

The facility projects the need in the future for additional capacity in the ash landfill for disposal of ash associated with the burning of lignite. The expanded ash landfill will result in increased amounts of stormwater runoff from the total net area affected by the landfill. The existing ash landfill retention pond does not have the capacity to meet the future stormwater management needs. As such, the facility is requesting approval from TCEQ to enlarge (expand) the existing ash landfill retention pond.

To meet the projected needs, the facility intends to construct a new containment berm immediately south (on land adjacent to) of the existing containment berm for the existing landfill retention pond. The existing sidewall structures of the landfill pond will be retained and extended down-slope, as needed, to help form the new (enlarged) sidewalls for the expanded landfill retention pond. The existing outfall structure will be removed and a new outfall structure (to remain as Outfall 004) will be relocated and constructed as part of the new containment berm.

Upon completion of construction of the new containment berm, the original containment berm will be removed and the area previously occupied by the original berm will become part of the expanded landfill retention pond. In addition, the area now comprising the existing landfill retention pond may be excavated and re-contoured in order to enhance the capacity of the expanded pond. All sediments removed from the area now occupied by the existing landfill retention pond will be emplaced in the ash landfill for de-watering and final disposal.

The facility will provide the as-built dimensions and capacity of the pond to TCEQ upon completion of the associated construction activities. The enlarged pond will meet and /or exceed the required liner and freeboard specifications for ponds as contained on page 14 in parts 5.D. and 5.E. of the existing TPDES wastewater permit for the facility.

Your consideration with respect to this request is appreciated.

Use of Ash Pond Water as a Dust Suppressant

The facility currently utilizes service water from Brandy Branch Reservoir as a source of make-up water for dust suppression activities. The dust suppression is accomplished through the use of a water truck, as necessary, during periods of dry weather when blowing dust, ash, and/or lignite have the potential to contribute to overall fugitive emissions at the facility. The service water is applied to the road surfaces of the haul roads associated with the transport of lignite and/or ash to and from the facility.

The facility is requesting approval to also utilize water from the ash pond as a dust suppressant. The volume of ash pond water that can be used will supplement the volume of water now utilized from the service water system, thereby conserving overall total water consumption. The water

will be applied to the road surfaces in such a way as to minimize runoff and/or pooling. Please note, however, that any stormwater runoff associated with the drainage systems for the haul roads currently enters into the facility's stormwater management system and one or more of the facility's stormwater management ponds. As a result, it is anticipated that the proposed dust suppression activities should pose no net impact to the environment with regard to storm events and associated stormwater runoff.

The quality of water from the ash pond is consistent with the proposed use as a dust suppressant, with levels of pH, TSS, Oil & Grease, and Selenium well within established wastewater discharge effluent limitations. A summary of the most recent wastewater monitoring information is included in the following table as supporting information for your convenience.

Your consideration with respect to this request is appreciated.

Reduced Monitoring Frequency for Selenium at Outfall 102

The facility requests to have a reduction in the monitoring frequency for Selenium at Outfall 102. Outfall 102 requires the monitoring of Low Volume Wastes at the facility prior to discharge and/or combining with other wastewaters. The existing permit requires Selenium to be monitored at a frequency of once per month. The facility respectfully requests to have the monitoring frequency reduced to once per quarter. The request for the reduced monitoring frequency is based on the unlikely presence of Selenium in the facility's Low Volume Wastewater, and the facility's excellent compliance history with respect to concentrations of Selenium previously discharged from this Outfall.

Please note that Outfall 102 discharges primarily wastewater from the plant's service water system, plant floor drains, and laboratory. At Pirkey, a significant amount of the low volume waste generated is from the facility's service water system, which is utilized primarily as non-contact cooling water for various pumps and pump systems. As such, the water discharged has little or no capability of accumulating concentrations of Selenium since it is not in direct contact with the burning of lignite and/or ash generated from the burning of the lignite. AEP maintains that monitoring of once per quarter for Selenium should be adequate enough to demonstrate that the facility's service water systems are not a source of Selenium in the discharge from Outfall 102. The compliance history is summarized in a table on the following page for your convenience.

Your consideration with respect to this request is appreciated.

Elimination of Compliance Schedule at Outfall 006

In conjunction with the implementation of new water quality based effluent limitations and the facility's efforts to mitigate discharges of Selenium at Outfall 006, AEP respectfully requests elimination of the Schedule of Compliance for Selenium at Outfall 006. In addition, AEP requests a full term of five years for the permit to be issued in conjunction with this permit action.

The previous version of the wastewater permit for the facility was restricted to a shorter term of three years due to the inclusion of the Schedule of Compliance for Selenium at Outfall 006 and

associated procedural term limits for such permits issued by TCEQ and subsequently reviewed and approved by EPA.

Your consideration with respect to this request is appreciated.

Temperature Definition for Outfall 002

Previous versions of the permit for the facility included descriptive language in the "Other Requirements" section of the permit that defined Temperature (Outfall 002 only) as a Flow Weighted Average Temperature (FWAT). Although calculating and reporting FWAT is inferred in the current permit, the definition for FWAT was inadvertently omitted from the Other Requirements section of the permit during the last permit action. The facility requests to have the definition for FWAT reinstated into the permit.

To accomplish this, the facility requests to have a footnote added to the effluent limitations page for Outfall 002. The footnote should reference the "Definitions" (Item 3.) in the Other Requirements section of the permit, and should include a description of Flow Weighted Average Temperature. We suggest the following language for the definition of FWAT in the Other Requirements section:

"Temperature is defined as a flow weighted average temperature (FWAT) that shall be computed and recorded on a daily basis. FWAT shall be computed at equal time intervals not greater than two hours. The method of calculating FWAT is as follows:

$$\text{FWAT} = \frac{\text{SUMMATION (INSTANTANEOUS FLOW X INSTANTANEOUS TEMPERATURE)}}{\text{SUMMATION (INSTANTANEOUS FLOW)}}$$

The "daily average temperature" shall be the arithmetic average of all FWAT's calculated during the calendar month.

The "daily maximum temperature" shall be the highest FWAT calculated during the calendar month.

Your consideration with respect to this request is appreciated.

Reduced Monitoring Frequency for TSS at Outfall 302

The facility also requests to have a reduction in the monitoring frequency for TSS at Outfall 302. The existing permit requires TSS to be monitored at a frequency of once per two months. The facility respectfully requests to have the monitoring frequency reduced to once per quarter. The facility has an excellent compliance history with respect to TSS monitoring at this Outfall. This compliance history is summarized in the table on the following page for your convenience.

Your consideration with respect to this request is appreciated.

ATTACHMENT G

OFFSITE/THIRD PARTY WASTES

OFF-SITE/THIRD PARTY WASTES

List of wastes received: Metal Cleaning Wastes.

Characterization of wastes received: Non-hazardous as per Total Metals and/or TCLP analyses.

Volumes of waste received: Up to approximately 100,000 gallons.

Compatibility with on-site wastes: The metal cleaning waste may be commingled with other metal cleaning wastes (and incidental amounts of stormwater) previously generated by Pirkey Power Plant and emplaced in the facility's metal cleaning waste pond.

Identified sources of wastes received: The waste source is from cleaning of metal equipment and/or metal surfaces at Knox Lee Power Plant. This source is a categorical wastestream defined as metal cleaning wastes as per the regulations in 40 CFR Part 423. Therefore, it is essentially an identical source as the metal cleaning waste generated at Pirkey Power Plant.

Name and address of generator:
Name: Southwestern Electric Power Company (SWEPCO)—Knox Lee Power Plant.
Address: 306 Knox Lee, Longview, TX 75603-9599.

Description of waste source with facility's activities: The waste source is essentially identical to the waste source for the facility's own metal cleaning wastes. After permit prescribed monitoring, treated metal cleaning wastes (including those received from Knox Lee) may be discharged via Outfall 202 at the facility. The metal cleaning wastes may also be emplaced in the facility's metal cleaning pond for additional treatment. Alternatively, the metal cleaning wastes may also be evaporated in the facility's boilers in accordance with requirements prescribed in the facility's air permit.

ATTACHMENT H

INVENTORY OF EXPOSED MATERIALS

INVENTORY OF EXPOSED MATERIALS

Material	Purpose/Location	Amount Stored	Type of Storage	Flow Direction/Area
Fuel Oil Tank (not in use)	Heat up boiler/ south of main office	NA	Steel tank	To ditch southwest to lignite pond
Clean Oil Tank	Lubricating oil/east of water treatment building	11,500 gal	Steel tank	To drain valve to ecology pit
Turbine Oil Reservoir	Inside building	11,500 gal	Steel tank	To floor drain to ecology pit
Dirty Oil Tank	Recycled/ east of water treatment building	11,500 gal	Steel tank	To drain valve to ecology pit
On-Road Diesel	Maintenance vehicles	500 gal	Steel tank	To drain valve south to lignite pond
Off-Road Diesel (2 tanks)	maintenance vehicles/ truck maintenance shop	10,000 gal 10,000 gal	Steel tank	To drain valve south to lignite pond
Unleaded Gasoline	Plant vehicles/ oil house	2,000 gal	Steel tank	To drain valve to ditch south to lignite pond
Kerosene	Fueling of plant equipment/ oil house	550 gal	Steel tank	To drain valve to ditch south to lignite pond
Main Power Transformers	East wall of turbine room - outside	16,900 gal	Inside equipment	To drain valve to ecology pit
Sulfuric Acid	Acid tank & demineralizer	15,000 gal	Steel tank	To drain valve to neutralization sump to ash pond
Caustic-Sodium Hydroxide	Caustic tank & demineralizer	15,000 gal	Steel tank	To drain valve to neutralization sump to ash pond
Sodium Hypochlorite	Demineralizer/chemical storage area	(2) 55-gal drums	Poly drums	To floor drain to ecology pit
Used Lube Oil	Holds used oil/ container storage area & tractor shop	1 500 gal 3 300 gal 11,000 gal	Steel tanks	Storage area – to ditch south to lignite pond Tractor shop – drain valve south to lignite pond
Naphtha Solvent - Safety Kleen	Solvent/ tank at oil house	550 gal	Steel tank	To drain valve to ditch south to lignite pond
Main Auxiliary Transformer	East of turbine building	12,780 gal	Inside equipment	To drain valve to ecology pit
Reserve Auxiliary Transformer	East of turbine building	15,100 gal	Inside equipment	To drain valve to ecology pit
Spare Main Power Transformer	South of warehouse	11,933 gal	Inside equipment	To drain valve northeast to ditch to makeup pond
Transformers	Switchyard	79,741 gal	Inside equipment	South to discharge canal
Oil Circuit Breakers	Switchyard	15,820 gal	Inside equipment	South to discharge canal
Optimene	pH adjustment for boiler/ chemical drum storage	55-gal drum	Poly drum	To floor drain to ecology pit
Hydroquinone	Oxygen scavenger for boiler/ east wall of boiler room	300-gal tank	Poly drum	To floor drain to ecology pit
Dust Foam Agent	Coal Yard Transfer House	6,000 gal	Poly tank	South to lignite pond
Calcium Hypochlorite	Potable Water Treatment (1) Drum Storage (2) Demineralizer	(40) 4-gal buckets	Poly bucket	To floor drain to ecology pit
Molten sulfur	Precipitator operation-N side of precipitator B	9,400-gal tank	Steel tank	To ditch and then west to surge pond

ATTACHMENT I

POTENTIAL POLLUTANT SOURCES AND BEST MANAGEMENT PRACTICES

DESCRIPTION OF POTENTIAL POLLUTANT SOURCES AND BEST MANAGEMENT PRACTICES (BMP's)

This section of the facility's SWP3 identifies pollution sources currently exposed to storm water. Potential sources of storm water contamination include material handling and storage areas, waste storage areas, and areas contaminated by previous leaks and spills. Only those areas representing *potential* sources of storm water contamination need to be considered in this Plan.

BMPs have been evaluated and implemented for areas that have the potential for materials to contact storm water. The Pirkey Power Plant has been subject to storm water pollution prevention planning requirements since 1992 when EPA's regulatory program for storm water discharges associated with industrial activity became effective. For purposes of the TPDES Multi-Sector General Permit under which Pirkey's storm water discharge points are covered, the BMPs that are identified have been fully implemented prior to November 19, 2001. Potential Source areas and BMPs are described below.

1. Fuel Oil Storage Tank
2. Fuel Oil Unloading Area
3. Turbine Oil Reservoir
4. Clean/Dirty Turbine Oil Tanks
5. Diesel Fuel Tanks
6. Unleaded Gasoline Storage
7. Kerosene Storage Tank
8. Drum Storage
9. Used Oil Storage
10. Chemical Storage Area
11. Acid Storage Area
12. Caustic Storage Area
13. Sodium Hypochlorite
14. Scrapyard & Borrow Area
15. Main Power Transformers Unit 1
16. Plant Access Road
17. Demineralizer Wastewater Treatment Tank

1. FUEL OIL STORAGE TANK (Decommissioned)

The fuel oil storage tank has been decommissioned as well as the fuel oil pipelines. Current operations do not involve storage or use of #2 Fuel Oil for use as a start-up fuel, rather the facility uses natural gas as the start-up fuel for Unit No. 1. However, the following describes the procedure that would be followed in the event the tank was placed in operation and if a discharge were to occur from this tank.

This 21,000-gallon tank of stored #2 Fuel Oil is set in a diked basin that can retain the entire contents of the tank and would prevent any fuel oil from entering Brandy Branch Reservoir. The chance of an overflow discharge is reduced due to the fact that operators supervising unloading operations know exactly how much oil is in the

tank, the tank capacity, and how much oil is being unloaded to the tank. Locks have been installed on the tank and dike drain valves to avoid an accidental spill.

In the event of a discharge from this tank, the dike drain valve, normally closed, will immediately be checked to insure that it is closed. Once contained in the basin, clean-up procedures will involve the use of response equipment specified in the SPCC Plan.

2. **FUEL OIL UNLOADING AREA (Not in Use)**

The unloading area for the tanker trucks carrying fuel has a chat base spread throughout the area in order to retain any oil accidentally spilled. Check valves that prevent oil from gravimetrically running back through unloading lines are installed. The oil unloading pumps are designed so that the pump cannot discharge to the ground. Warning signs are posted to remind drivers to disconnect all lines before moving their truck.

3. **TURBINE OIL RESERVOIR**

Oil is transferred regularly to and from this tank for lubricating turbine bearings and hydraulic controls. The tank is large enough to hold the oil in the system. During the oil transfer procedure, personnel are present. The amount of oil in both the clean and dirty oil tanks is checked. Then the dirty oil from the turbine oil reservoir is pumped through a centrifuge to the dirty oil tank. The oil is then pumped through the centrifuge again to the clean oil tank and back to the turbine oil reservoir. All valves that drain oil out of the system have been locked. Operations personnel observe this tank at least once every hour; however, due to the regular frequency of inspections, logs may not be kept of the hourly inspection.

The turbine oil reservoir is provided with high and low level alarms that will immediately notify the operators of a discharge. If a discharge occurs, oil would flow into the secondary containment basin around the tank.

4. **CLEAN/DIRTY TURBINE OIL TANKS**

One set of clean and dirty oil tanks is used for unit #1. The combined 23,000-gallon concrete catch basin is separated into two compartments that are used to store clean and dirty lubricating oil. The oil is periodically transferred to the centrifuge to be cleaned or to replace dirty oil in the turbine oil reservoir. Personnel are present during the transfer process. The operators know the quantity of oil to be pumped into the clean or dirty oil tank, how much is in each tank prior to the pumping operations, and the capacity of each tank. A level gauge is on each tank that is checked during the process to prevent spills. The process involves opening and closing valves to transfer oil in permanently placed pipes; no hoses or hose connections are involved. Locks have been placed on valves that could drain oil to the concrete catch basin. These tanks are located on the east wall of the water treatment building, facing the reservoir (see site map).

If a discharge occurs, oil would flow into the surrounding basin (which has a locked drain valve) and then to the oil separator that has capacity to contain contents of the

tank. If the oil by-passed the separator, the spill could enter Brandy Branch Reservoir. However, personnel would attempt to contain the oil in the separator.

5. **DIESEL FUEL TANKS**

The two 10,000-gallon Diesel Fuel tanks are used for the fueling of diesel powered coal yard equipment and all other diesel powered vehicles at the plant. In the event of a diesel fuel release from the tanks, the oil will be contained in a concrete diked basin surrounding the aboveground storage tanks.

During heavy rainfall events the diked drain valves are opened to release stormwater and recorded on the Form included in Appendix B. In the event of a discharge from these tanks, the locked dike drain valve, normally closed, will immediately be checked. Once contained in the basin, clean-up procedures will involve the use of sorbent materials readily available from the on-site storage area or response contractors.

6. **UNLEADED GASOLINE STORAGE**

This 2,000-gallon double-walled tank is used to store unleaded gasoline for plant maintenance vehicles. The concrete tank is self-contained within a monolithic pour with no joints or seams.

7. **KEROSENE AND SAFETY CLEAN STORAGE TANK**

The 500-gallon kerosene tank is used for the fueling of plant equipment. The Safety-Kleen tank is used for parts cleaning associated with plant maintenance activities.

Both tanks are located within a concrete diked containment system. During heavy rainfall events the diked drain valves are opened to release stormwater and recorded on the Form included in Appendix B. In the event of a discharge from this tank, the locked dike drain valve, normally closed, will immediately be checked. Once contained in the basin, clean-up procedures will involve the use of sorbent materials readily available from the on-site storage area, or through response contractors.

8. **DRUM STORAGE**

Drums of new oil and lubricants are stored in the Oil House, which is completely enclosed. Drums of waste materials and used oil contained in the lube cubes are stored next to this building and are within a covered area. For housekeeping and management control purposes, the drum storage area is listed on a regular PM program and inspected on a monthly basis to ensure that drip pans and potential leaks are remedied.

9. **USED OIL STORAGE TANK**

The 1,000 gallon used oil tank is located at the tractor shop. Used oil is collected from heavy mobile equipment and transferred to the used oil storage tank. A steel secondary containment system is provided to hold the contents of this tank. During heavy rainfall events the locked diked drain valves are opened to release stormwater and recorded on the Form included in Appendix B.

10. CHEMICAL STORAGE AREA

This is the covered concrete area adjacent to the demineralizer that stores drums of hypochlorite, ferric sulfate, and polymer. This area is inspected on a regular basis to ensure adequate housekeeping is controlled.

11. ACID STORAGE AREA

Sulfuric acid is used for regeneration of the cation-exchange unit for the demineralized water treatment system. The sulfuric acid is stored in a 15,000-gallon aboveground steel tank located on the east wall of the water treatment building. If a release occurs from the acid tank, the sulfuric acid will be contained within the concrete containment system. For small releases, the acid may be diluted, neutralized and discharged to the demineralizer drain system that will flow from the chemical sump into the ash pond.

During heavy rainfall events the locked diked drain valves are opened to release stormwater and recorded on the Form included in Appendix B.

12. CAUSTIC STORAGE AREA

Sodium hydroxide is used for regeneration of the anion-exchange unit for the demineralized water treatment system. Sodium hydroxide is stored in a 15,000-gallon aboveground steel tank located on the east wall of the water treatment building. If a release occurs from the caustic tank, the sodium hydroxide will be contained within the concrete containment system. During heavy rainfall events the locked diked drain valves are opened to release stormwater and recorded on the Form included in Appendix B.

If a release occurs from the caustic tank, the sodium hydroxide will be contained within the concrete containment system. For small releases, the caustic may be diluted, neutralized and discharged to the demineralizer drain system that will flow from the chemical sump into the ash pond.

13. SODIUM HYPOCHLORITE

Sodium hypochlorite is stored in 55-gallon drums at the water treatment plant and the chemical storage area. One drum remains in storage while the other is in use and located in the water treatment building. In the event of a spill, the first priority is to stop or contain the source by using absorbent pillows, towels or absorbent materials to absorb potential spills. After removal of the spilled material, thoroughly wash down the area with water.

14. SCRAPYARD & BORROW AREA

The scrapyard is located east of the plant across the intake canal on the peninsula. Equipment must be emptied of oils and liquids prior to placing in the scrapyard. Equipment must be inspected to ensure that materials have been emptied and free of chemicals. Scrap metal is collected for recycling in a scrap bin located south of the plant near the transfer house. The borrow area is a former topsoil excavation site located west of the plant. Vegetation and sedimentation controls (e.g., silt fences and/or hay-bale dams) will be maintained to minimize erosion.

15. MAIN POWER TRANSFORMERS UNIT 1

Transformer oil is not transferred during normal operations. In the event that the oil is changed, replacement is performed with trained personnel that are familiar with the techniques and capacities involved. Level indication gauges are attached to the oil reservoirs to reduce the possibility of over-filing. Valves that drain oil have been plugged to reduce the chance of discharge. These transformers are also equipped with a low level alarm that enables the operators on duty to detect a rupture or leak immediately.

A concrete drain basin surrounds each of the transformers. This basin is designed to catch oil that may be discharged. Drains on basins are kept closed and are opened only after rains to release collected water. If oil were discharged to the basin, it would flow through an oil separator (ecology pit) with a floating oil skimmer and oil tank that is large enough to handle a transformer spill. If the oil bypasses the separator, it would then enter Brandy Branch Reservoir. If the oil bypasses the oil separator, the oil will be contained next to the oil separator discharge with the use of response equipment located on-site. Large spills will be cleaned-up by response contractors.

The spare main transformer has a diked basin large enough to contain the entire contents of the tank. The drain valve is locked in the closed position to prevent any accidental discharge.

16. PLANT ACCESS ROAD

Raw materials are delivered to the plant via the access road that enters the plant site near the northeastern corner and travels directly south toward the main office building. Materials transported along this route include fuel oil, acid, caustic, and various other type chemicals for plant operations. Vehicle accidents are the potential source of spills along the access road.

The access road crosses the major drainage area of the facility. If spills occur, materials could migrate along this overland flow path and ultimately into Brandy Branch Reservoir.

17. DEMINERALIZER WASTEWATER NEUTRALIZATION TANK

The wastewater neutralization tanks are located on the southeast side of the water treatment building. Demineralizer waste enters the waste neutralization tanks for temporary storage prior to discharging to the ash pond.